SIEMENS

UROSKOP D1/D2/D3 (SU)

SP

Update Instructions SP017/03/S

Title: Hardware Check Motor Drive

Reason for update: [X] Safety

Urgency:	[X] Immediate	[ ] Within	months
Update materials required?	[X] Yes	[ ] No	
Materials free of charge?	[X] Yes	[ ] No	
Return of parts?	[ ] Yes	[X] No	
Estimated completion time:	2 h	Number of CSE's:1	
Customer application training?	[ ] Yes	[ ] No	

Systems/Products affected/System identifying IVK

Name	Material No.	Serial No.
UROSKOP D1 (SU)	97 85 023 G5354	1002 - 1007
UROSKOP D2/D3 (SU)	97 85 015 G5354	1001 - 1049; 1051 - 1052

Remark: n.a.

Components affected/to be modified/IVK

Name	Material No.	Serial No.	Component status affected
n.a.	n.a.	n.a.	n.a.

Remark:

Chg. Ref. No.: 118 482
Name: Erlwein
Dept.: CS PS 24

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Print No.: RLL5-310.896.10.01.02 Doc. Gen. Date: 07.03

Replaces: n.a. Version 2.1; January 14, 2003

Document Revision Level

This document corresponds to the version/revision level effective at the time of system delivery. Revisions to hardcopy documentation are not automatically distributed.

Please contact your local Siemens office to order current revision levels.

Disclaimer

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Systems/Products Affected

UROSKOP D1/D2/D3 with POLYDOROS SU

Reason for the Update

In addition to the software monitoring of the movement commands to the motor controller and the feedback from the motor controller, the output stages of the motor controller for table tilt and table longitudinal movement are switched in through additional hardware on release of the movement command and switched off again at the end of the movement command.

Prerequisites

In order to be able to make changes on boards, the service technician must have the knowledge and experience required for soldering on boards. If this is missing, a changed board must be ordered.

Special Tools / Documents

n.a.

Ordering Information

The following update kit has to be ordered from CSML (SAP Distribution Channel, factory 2050) or BU Logistics (factory BU) (only with an order via BU Logistics):

Update Kit 11 56 715 (Material Number)

List the system Serial Number on the order!

Contents of the Update Kit

Update kit **11 56 715** contains the following parts:

Pos.	Quan.	Material No.	Name
1	1	11 56 681	Board D23
2	1	16 61 326	Firmware BBC VA00D
3	1	11 56 699	Keyboard release update kit
4	1	31 21 006	Service software VB01E
5	1	G5403, G5353	Wiring diagram excerpts
6	1	RLL5-310.896.10.01	Technical document
7	1	SP33-03	Speed Info for the service software

Tab. 1

Return of Parts

n.a.

Hardware Changes

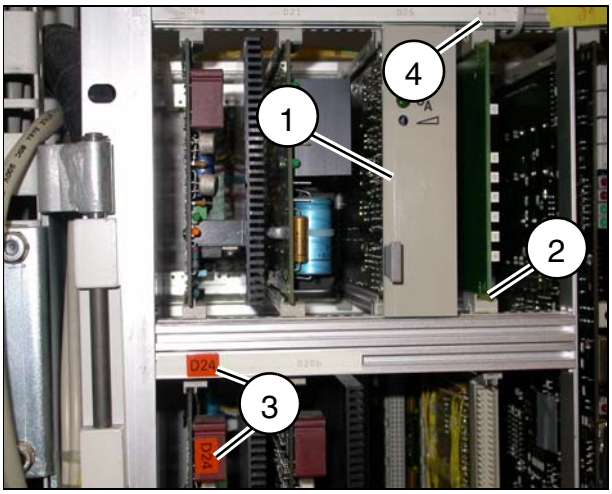

Fig. 1

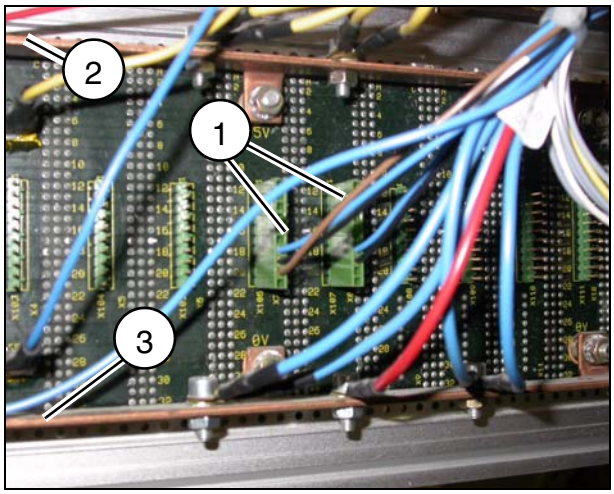

Fig. 2

- Remove the board D25 (1/Fig. 1)
- Swivel out the control unit M20.
- Remove any EMC covers.
- Fasten the socket connector for board D23 at the slot next to board D25 (2/Fig. 1). Use the supplied slotted cap screws for this. If there are no threads available in the control frame, then use self-tapping screws M2.5 x 8 with Phillips head.
- Label the slot with D23 (4/Fig. 1).
- Attach guide rails.
- Plug board D25 back in.
- Check DIP switches on board D23. Switches 3, 4 and 6 must be "ON". The position of all other switches is arbitrary.
- Plug in board D23.

NOTE

To avoid confusion, always open only one connection in the following work steps, then connect and insulate the two ends with the leads from socket connector D23. The designation D20a is identical with the new designation D24.

- Separate the yellow lead from the cable harness to socket connector D20a, b2 and strip the two ends approx. 5 mm.
- Push shrink hose over the two yellow leads of the socket connector D23.
- Solder the lead from the socket connector D23 d10 with the end of the lead that goes to the cable harness.
- Solder the lead from the socket connector D23 d22 with the end of the lead that goes to the socket connector D20a b2.
- Insulate the solder joints with shrink hose.

- The two gray leads of socket connector D23 d12 and d24 are not required. Insulate these individually with shrink hose.
- Separate the white lead from the cable harness to socket connector D20b, b2 and strip the two ends approx. 5 mm.
- Push shrink hose over the two white leads of the socket connector D23.
- Solder the lead from the socket connector D23 d14 with the end of the lead that goes to the cable harness.
- Solder the lead from the socket connector D23 d26 with the end of the lead that goes to the socket connector D20b b2.
- Insulate the solder joints with shrink hose.

NOTE

If the system is not equipped with tomograpphy (UROSKOP D1), then the following 5 work steps cannot be executed. In this case the two gray leads from the socket connector D23 need to be insulated separately.

- Separate the gray lead from the cable harness to socket connector D20b, b4 and strip the two ends approx. 5 mm.
- Push shrink hose over the two gray leads of the socket connector D23 d16 and d28.
- Solder the lead from the socket connector D23 d16 with the end of the lead that goes to the cable harness.
- Solder the lead from the socket connector D23 d28 with the end of the lead that goes to the socket connector D20b b4.
- Insulate the solder joints with shrink hose.
- Remove the plugged in leads (yellow and blue) from socket connector X 103 to X 108 or from X105 to X 106. The leads are on the backplane board D10.
- Run the prefabricated double lead from socket connector X 106 to X 107 (1/Fig. 2). The lead connections must be run from point X106.7 to X107.7 and from point X106.8 to X 107.8. Pay attention to the correct location of the plug.
- Plug the brown lead from the socket connector D23 d8 into the 10-pin socket connector X106.9
- Screw fasten the red lead from socket connector D23 d2 onto the plus rail (2/Fig. 2)
- Screw fasten the blue lead from socket connector D23 d4 onto the minus rail (3/Fig. 2)
- Reattach the EMC covers, swivel in the control unit and fasten it with screws.

Replacing the BBC-Controller Firmware

- Replace PROM J7 on board D3 with the PROM from the upgrade kit included in delivery.

Changes on board D3

- On board D3 solder interconnecting wire 0.25 from X11 a4 (1/Fig. 5) to X2 c27 (2/Fig. 5).

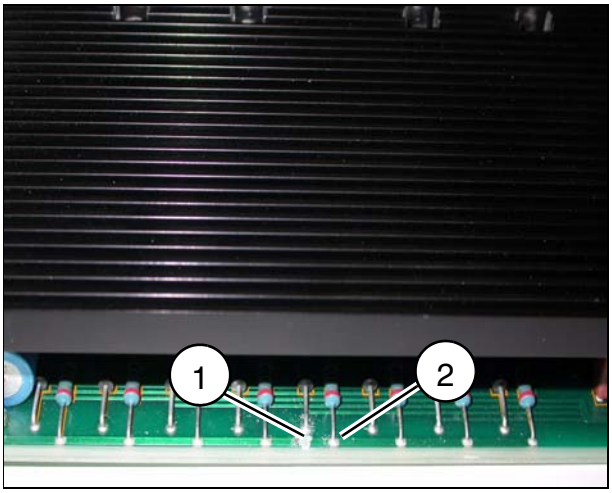

Fig. 3

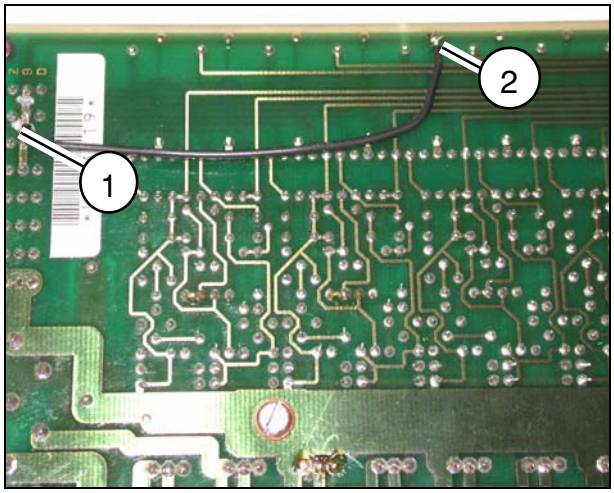

Fig. 4

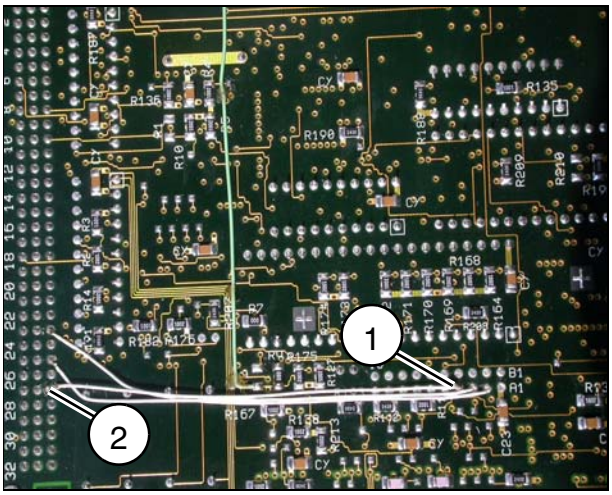

Fig. 5

Conversion of the board D20a into board D24

⚠CAUTION **The board 89 49 505 may no longer be used in slot D24. If these boards are installed in slot D24 then the monitoring is ineffective.**

- Remove board D20a.
- Separate the connection from socket connector X1 b2 to b4 (1/Fig. 4) on the soldering side of the board and check the interruption with an ohmmeter.
- Interrupt connection between 4th and 5th resistor (1/Fig. 3) and check the interruption with an ohmmeter.
- Solder interconnecting wire 0.5 on board from socket connector X1 b4 (1/Fig. 4) to the 5th resistor (2/Fig. 3 and 2/Fig. 4) viewed from the socket connector.
- Stick label printed with the new part number 11 56 731 over the old part number 89 49 505 G5334 on board.

- Affix label D24 at position (3/Fig. 1).
- Cover old designation D20a on the frame with new label D24.

Service Software

NOTE	**The supplied service software is not required for this update. The opportunity to distribute it to all systems is used with this UI. This service software is released for all operating systems WIN 98, WIN 2000 and WIN XP. Speed Info SP 33-03.**

Final Check

NOTE	**All texts and checks marked with the symbol " ✍ " must be confirmed in the UI.**

- Set board D23 to extension.

✍
- Press the upright table button on the system control panel or hand-held control panel
  - The table uprights ☐
  - **UROSKOP D1:** ☐
    The diodes V7 (green), V1 and V3 (yellow) on D23 light up during the movement
  - **UROSKOP D2/D3:** ☐
    The diodes V7 (green), V1, V3 and V4 (yellow) on D23 light up during the movement
  - All diodes go out approx. 3 s after the button is released ☐

✍ **Perform and confirm the above test step in the same sequence for the points listed below. The movements marked with (*) are not available with UROSKOP D1.**

- Tilt table ☐
- Raise table ☐
- Lower table ☐
- Tilt column to the left ☐ (*)
- Tilt column to the right ☐ (*)
- Table longitudinal headwards ☐
- Table longitudinal footwards ☐
- Table transverse to the left ☐
- Table transverse to the right ☐
- Routine ☐ (*)
- 8° ☐ (*)
- 20° ☐ (*)

- Turn the DIP switches 3 and 4 on D23 into the "OFF" position

✍
- Press the table longitudinal button on the system control panel or hand-held control panel
  - The table moves longitudinally ☐
  - The diodes V7 (green) and V1 (yellow) on D23 light up during the movement ☐
  - All diodes go out approx. 3 s after the button is released ☐
- Press the table tilt button on the system control panel or hand-held control panel
  - The table does **not** tilt ☐
  - D1 (HOST) shows error message 4261 ☐
  - System control panel shows E52 ☐

- Turn the DIP switches 3 and 4 on D23 into the "ON" position
  - Press the Reset button on board D1 (HOST) to delete error ☐

- Turn the DIP switch 6 on D23 into the "OFF" position

✍
- Press the table tilt button on the system control panel or hand-held control panel
  - The table tilts ☐
  - **UROSKOP D1**: ☐
    The diodes V7 (green) and V3 (yellow) on D23 light up during the movement
  - **UROSKOP D2/D3:** ☐
    The diodes V7 (green), V3 (yellow) and V4 (yellow) on D23 light up during the movement
  - All diodes go out approx. 3 s after the button is released ☐
- Press the table longitudinal button on the system control panel or hand-held control panel
  - The table does **not** move longitudinally ☐
  - D1 (HOST) shows error message 4262 ☐
  - System control panel shows E53 ☐

- Turn the DIP switch 6 on D23 into the "ON" position
  - Press the Reset button on board D1 (HOST) to delete error ☐

Customer Information

If the defect of an operating element (e.g. a jamming button) leads to a table movement not stopping after the end of operating the button, then one of the emergency stop buttons must be operated immediately according to the operating instructions.
Please inform the user /operator within the scope of this update once again about these circumstances as described in the operating instructions.

Final Work Steps

- Update the system documentation.
  Update the revision level, the operating instructions and the technical documentation.
  The two circuit diagrams with the number G5353 are assigned to the UROSKOP D1.
  Fill out, and if needed, make a copy of the attached "Completion Protocol/ Update Completion Form" and file it in the corresponding System Binder/User Handbook.
- Updates that have already been completed prior to publication of this SI must also be reported.
- The update is reported as follows:
  - The modification reply cards (Type 606) previously distributed with the publication of updates no longer apply.
  - The modification reply report has to be prepared by authorized personnel using an application on the Intranet.)

Changes to Previous Version

n.a.

Completion Protocol

The update with the number **SP017/03/S** has been completed.

Material number: .....

Serial number: .....

Customer: ..... Functional Location: .....

Customer No.: .....

Name (CSE): ..... Telephone: .....

Country: ..... Location: .....

Date: ..... Signature: .....

Remark: .....

.....

NOTE

After completing the update, make a copy of this page, fill it out and file it in the corresponding System Binder/User Handbook.